

WHAT IS CLAIMED IS:

1. A soybean, having total free amino acid content in the seed thereof that is higher than the content in the seeds of any of Fukuyutaka and Tachiyutaka having all subunits of β -conglycinin and glycinin, Enrei lacking only A₅A₄B₃ subunit of glycinin, Kyukei 305 lacking all subunits of β -conglycinin and EnB1 lacking all subunits of glycinin that are cultivated under similar conditions.
2. The soybean of claim 1, having total free amino acid content in the seed thereof that is at least 2 times or more greater than the content in the seeds of any of Fukuyutaka and Tachiyutaka having all subunits of β -conglycinin and glycinin, Enrei lacking only A₅A₄B₃ subunit of glycinin, Kyukei 305 lacking all subunits of β -conglycinin, and EnB1 lacking all subunits of glycinin that are cultivated under similar conditions.
3. The soybean of claim 1, wherein the total free amino acid content in the seed thereof is 8 mg or more per gram dry weight of the seed.
4. The soybean of claim 1, wherein the content of at least one of free amino acids selected from the group consisting of arginine, asparagine, histidine and glutamine among each of free amino acids contained in the seed is greater than that contained in the seed of any of Fukuyutaka and Tachiyutaka having all subunits of β -conglycinin and glycinin, Enrei lacking only A₅A₄B₃ subunit of glycinin, Kyukei 305 lacking all subunits of β -conglycinin and EnB1 lacking all subunits of glycinin that are cultivated under similar conditions.
5. The soybean of claim 4, wherein the contents of each free amino acids of arginine, asparagine, histidine and glutamine among each of free amino acids contained in the seed are each greater than the contents thereof in the seeds of any of Fukuyutaka and Tachiyutaka having all subunits of β -conglycinin and glycinin, Enrei lacking only A₅A₄B₃ subunit of glycinin, Kyukei 305 lacking all subunits of β -conglycinin and EnB1 lacking all subunits of glycinin wherein they are cultivated under similar conditions.
6. The soybean of claim 1, genetically lacking at least α , α' and β subunits of β -conglycinin, and A_{1a}B₂, A₂B_{1a}, A_{1b}B_{1b} and A₅A₄B₃ subunits of glycinin.
7. The soybean of claim 6, genetically lacking all subunits of β -conglycinin and glycinin.
8. A method of producing the soybean of claim 6, comprising either step of crossing a soybean

lacking one or more subunits selected from the group consisting of α , α' and β subunits of β -conglycinin, and $A_{1a}B_2$, A_2B_{1a} , $A_{1b}B_{1b}$ and $A_5A_4B_3$ subunits of glycinin with a soybean lacking all the subunits contained in the above soybean among the subunits in the above group, or step of crossing a soybean lacking all of the above subunits with a soybean having all of or some of these subunits, wherein at least one of the two soybeans to be crossed herein has the A_3B_4 subunit of glycinin.

9. The method of producing the soybean of claim 7, comprising either step of crossing a soybean lacking one or more subunits selected from the group consisting of α , α' and β subunits of β -conglycinin and $A_{1a}B_2$, A_2B_{1a} , $A_{1b}B_{1b}$, $A_5A_4B_3$ and A_3B_4 subunits of glycinin with a soybean lacking all the subunits of the soybean among the above subunits, or step of crossing a soybean lacking all of the subunits in the above group with a soybean having all of or some of these subunits.
10. The method of claim 8 or 9, comprising a step of crossing Kyukei 305 lacking all subunits of β -conglycinin with EnB1 lacking all subunits of glycinin.
11. The method of any one of claims 8 to 10, further comprising a step of selecting a line having only the A_3B_4 subunit of glycinin among the subunits of β -conglycinin and glycinin, or a line lacking all subunits of β -conglycinin and glycinin following the step of crossing.
12. A functional food, which is produced using the soybean seed of any one of claims 1 to 7 as a raw material, and wherein the total free amino acid content is increased.
13. A method of producing a functional food wherein the total amino acid content is increased, using the soybean seed of any one of claims 1 to 7 as a raw material.